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TITLE : METHOD FOR DETECTING CARCINOGENESIS OF MATERIAL TO BE INSPECTED

ABSTRACT : PURPOSE: To detect a carcinogenic substance at high reproducibility through simple operation from the color developing rate of the cell of an internal organ of an animal by causing a color developing reagent to act on the cell after making a PCNA monoclonal antibody react to the cell a fixed period after dosing the cell with a substance to be inspected.

CONSTITUTION: A PCNA monoclonal antibody reacts to PCNA-positive cells of hepatic cells in a proliferation period. The reaction between hepatic cells and the monoclonal antibody is caused to occur by removing unreacted enzyme labeled antibodies after extracting and fixing the liver of an animal, preparing a slice of the liver by burying the liver in paraffin, and removing the paraffin from and giving a hydrophilic property to the slice, and causing the antibody to react to enzyme labeled antibodies. The PCNA monoclonal antibody is obtained by cultivating the ascites of a mouse or a cell strain which produces an antibody in vitro and separating and refining the supernatant liquid by using Protein-A Sepharose(R), etc. The carcinogenesis of an object to be inspected can be detected when the ratio of PCNA-positive cells to all substantial hepatic cells is found by detecting the PCNA-positive cells by using a color former after causing a reaction between hepatic cells and enzyme-labeled antibodies and removing unreacted antibodies.

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- [04] M423 M750 M903 N102 Q233 V791 V802 V818
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PR - JP19900115644 19900501
XA - C1992-031390
XIC - G01N-033/53
XP - N1992-051557
AB - J04012273 Method comprises subjecting DNA polymerase alpha monoclonal antibody labelled with fluorescent dye and cell to antigen-antibody reaction, and detecting DNA polymerase alpha-positive cell from fluorescence.
- USE/ADVANTAGE - Form determining the proliferating activity of cell, useful for e.g. the diagnosis of leukemia, tumours, malignant tumours, etc. The proliferating activity of fresh cells and non fresh cells can be easily determined without introducing cpd. such as thymidine or without requiring skilful technique and radioisotope facilities. The method has high determination sensitivity and is applicable to identification of proliferating cell in a sample of low content of DNA polymerase alpha-positive cell. Cells at S stage and cells at other than GO stage can be detected. The content of proliferating cell in a sample and relative and qualitative amt. of DNA polymerase alpha in a sample can be obtained. DNA polymerase and other cell antigens can be simultaneously and simply detected.
IW - DETERMINE PROLIFERATION ACTIVE CELL SUBJECT DNA POLYMERASE ALPHA MONOCLONAL ANTIBODY ANTIGEN ANTIBODY REACT DETECT FLUORESCENT
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NC - 001
OPD - 1990-05-01
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PAW - (IGAK-N) IGAKU SEIBUTSUGAKU
TI - Determining proliferating activity of cell - by subjecting DNA polymerase alpha monoclonal antibody to antigen-antibody reacting and detecting fluorescence